

dinal impressed line extending length of elevations, elevations low and subtriangular, median concavity shallow and circular. Scutellum triangular, finely sparsely punctured, a shallow longitudinal impressed line extending nearly to apex. Elytra moderately broad, individually about five times as long as wide, finely rugose punctate basally, becoming finely scabrose apically. Body beneath finely pustulate-punctate on the metasternum, abdominal sternites alutaceous, finely sparsely punctured; legs with protibiae not bent and apically dilated and metacoxae without an apical process; concave undersides of tarsal segments densely covered with short cinereous pubescence giving them a whitish appearance. Pro- and mesotarsal claws broadly cleft, two portions nearly parallel, metatarsal claws similar but appendix curved and diverging from the claw.

*Holotype male*.—MT. LEMON, CATALINA MTS., ARIZONA, 12 June 1912, collected by J. R. Slevin. Type in the collection of the California Academy of Sciences.

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### The Status of *Andrenosoma Rondani*, *Pilica Curran*, and *Pogonosoma Rondani*, with Two New Species

(Diptera : Asilidae)<sup>1</sup>

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In the recent *Catalog of the Diptera of North America* Martin and Wilcox (1965) made *Pilica Curran* with bristles on the metanotal calli a synonym of *Andrenosoma Rondani* with bare calli. Also, such bristles do not separate *Bombomima* Enderlein from *Laphria* Meigen (Martin, 1965). One species of *Bombomima* has bare calli while the number of bristles on the calli of the other 31 species ranges from three on one species on up to many on several. Half of the *Laphria* have such bristles while the other half have none. The three Nearctic *Pogonosoma Rondani* and the type of the genus, Palearctic *P. maroccum* (Fabricius), have bare metanotal calli, but the new species described here has metanotal bristles. The either bare or bristled hypopleurae, which are anterior to and adjacent to the metanotal calli, do not separate *Stenopogon* Loew from *Scleropogon* Loew.

*Pogonosoma* was retained in the Catalog with reservations because only the three submarginal cells separate the genus from *Andrenosoma*. In *Efferia* Coquillett 10 species have three submarginal cells but the

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other 100 or more have only two. In some species there are specimens with either two or three submarginals. The number of submarginals was of no generic value for separating *Efferia* from *Nerax* Hull (Martin, 1965).

In a strict sense both *Pogonosoma* and *Pilica* should be synonymized with *Andrenosoma* since the metanotal calli are either bare or bristly in the same genus, there are either two or three submarginals in the same taxa, and no other characters separate the three genera. However, past authors reduced *Pogonosoma* (Wulp, 1872; Hermann, 1914; Ricardo, 1927) and *Pilica* (Carrera, 1960) to subgenera of *Andrenosoma*. On the basis of these precedents, and because the names are available, I am recognizing the two subgenera.

A new species of *Pogonosoma* and one of *Andrenosoma* are described. *Pogonosoma arachnoides* Bigot is redescribed; notes are given on *P. dorsatum* (Say). Types are deposited in the California Academy of Sciences.

#### KEY TO THE NORTH AMERICAN SUBGENUS POGONOSOMA

1. Hind femora red with a black apical macula dorsally; face with yellow spot on gibba; thorax black, grayish brown tomentose with dark brown markings; length 11–15 mm. (California) ..... *hesperium*, new species  
Hind femora totally black ..... 2
2. Femora black, tibiae reddish yellow with dense long yellow hair, similar hair ventrally on femora; dense long yellow hair on head; length 26 mm. (Mexico) ..... *arachnoides* Bigot  
Femora and tibiae black; vestiture white, gray, or black ..... 3
3. Sternite 6 of male with a tooth-like projection on posterior margin; face between antennae and gibba polished; wings deep brown; length 15–20 mm. (Eastern United States) ..... *dorsatum* (Say)  
Sternite 6 without tooth-like projection; face pollinose; wings with fuscous confined to veins; length 15–23 mm. (Western United States) .....  
..... *ridingsi* Cresson

#### ANDRENOSOMA (POGONOSOMA) ARACHNOIDES (Bigot) new combination

*Pogonosoma arachnoides* Bigot, 1878, Annal. Soc. Ent. France, ser. 5, 8: 227.

Redescription. MALE: Length 26 mm. Head black, proboscis straight, pointed, second palpal segment flat; face yellow tomentose, polished below eyes, front polished bluish black, occiput gray pollinose; gibba with dense yellow hair to antennae, row of yellow hair along orbitals, ocellar tubercle with several long yellow bristles and short hair along orbitals, dense yellow hair extends down from the ocellar tubercle over the occiput, upper occiput with stronger bristle-like yellow hairs; antennal segment 1 and 2 dark red, segment 1 about twice as long as 2 (segment 3 missing).

Thorax bluish black, shining, posterior calli dark red (middle of the thorax is bare apparently because of an abrasion); laterally long yellow pile and bristles;

thinly brown tomentose on anterior margin; scutellum bluish black, long dense hair on posterior margin yellow.

Abdomen destroyed ventrally; tergites 3–8 yellow; covered with yellow dense pile, male genitalia (partially destroyed) with vestiture yellow to brownish yellow.

Wings brown, apex whitish; three submarginal cells, marginal cell long and petiolate, first posterior and anal cells short petiolate, posterior cell 4 petiolate, veins reddish brown.

Femora black, inflated, hind femora more clavate than the anterior four, a sparse fringe of long yellow pile antereodorsally on basal two-thirds of hind femora, ventrally the yellow pile more extensive, short black hair apically, dorsally a few yellow hairs, apically a number of black and red bristles, vestiture of anterior femora similar, four anterior tibiae red, hind tibiae yellow with long and short yellow hair, apical tarsal segments with long black bristles.

LECTOTYPE.—Male, with handwritten label "*Pogonosoma arachnoides*. 218 in Coll. Bigot," a second label, "Coll. Bigot. abt. 1845–93. Pres. 1913 by J. E. Collin." Lectotype in Hope Department of Entomology, Oxford, type number 345. Type locality is Mexico.

#### ANDRENOSOMA (POGONOSOMA) DORSATUM (Say) new combination

*Laphria dorsatum* Say, 1824, Amer. Ent., or descript. of insects of North America, 1: pl. 6.

*Pogonosoma dorsatum*; Cresson, 1920, Ent. News, 31: 211–215.

*Laphria melanoptera* Wiedemann, 1828, Ausser. Zweifl. Insekten., 1: 514.

*Pogonosoma melanoptera*; Cresson, *Ibid.*

*Pogonosoma melanoptera*; Martin and Wilcox, 1965, A Cat. of Dipt. N. A., U. S. D. A. Agri., Handbook 276: 391.

Cresson (1920) made *Laphria melanoptera* Wiedemann a synonym of *Laphria dorsatum* Say. Williston (1882), Schiner (1866), and Hull (1962) considered both species to be valid. Cresson put the species in *Pogonosoma*.

Thirty specimens labeled both as *Pogonosoma dorsata* (Say) and as *P. melanoptera* (Wiedemann), and ranging from Massachusetts to Georgia, were studied. All the males, and also Wiedemann's syntype male specimen, have on the posterior margin of sternite 6 a median tooth-like projection covered with yellowish brown tomentum. This tooth is not present on the males of other species.

Either North or South Carolina is the type locality of *Pogonosoma melanoptera*. While Wiedemann (1828) designated the type locality as "Vaterland?" in the original description, yet I found locality labels "Carolina" on the pins of the syntype specimens in Wiedemann's Collection in the Naturhistorische Museum, Zoologische Abteilung, Vienna, Austria.

Bromley (1934) wrote "*Pogonosoma dorsatum* is a species of the

Atlantic Coastal Plain. 'It occurs in hot, dry situations on stumps and logs of pine trees. . . .' It is mimetic of some metallic black sphecids or spider wasps and even flits its wings while at rest in a manner very suggestive of these wasps. . . ."

***Andrenosoma (Pogonosoma) hesperium* Martin, new species**

*Andrenosoma (Pogonosoma) hesperium* is related to *P. arachnoides* Bigot but differs in that the legs are red with black maculae dorsally on the femora. The femora of *P. arachnoides* are black; the hair on the body of *P. arachnoides* is much more dense than on *P. hesperium*.

MALE.—Length 14 mm. Head black, yellow spot on gibba; face yellowish brown to gray tomentose, a transverse polished black stripe before the ocellar tubercle, occiput gray tomentose, narrowly densely gray along orbitals; mystax yellowish white, sparse hair covers face to antennae, a few black hairs on apex of gibba, clumps of black and a few yellow bristles on orbitals of front, five yellow bristles on ocellar tubercle, hair on occiput yellowish white below, mixed black and yellow above; antennae orange yellow, segment 1 with yellowish white vestiture, black bristles on segment 2, segment 2 subequal to 1, segment 3 over three times longer than segment 2.

Thorax black, anterior and posterior calli red; gray tomentose with brown tomentose markings; vestiture anteriorly mostly black, laterally bristles yellow, metanotal declivity with long yellowish white pile and some black; scutellum yellowish brown to gray tomentose, pale pile on disc, posterior margin with 8 yellow bristles; pleurae gray tomentose to brown; vestiture pale; metanotal slope with hair, crinkly apically.

Abdomen reddish yellow, tergite 1 dorsally bluish black, tergite 2 dorsally with narrow transverse obscure black stripes, anteriorly lateral margins of tergites 1–6 with narrow black maculae; vestiture recumbent yellow hair, more dense laterally and along anterior margin, tergites 2–5 medially near lateral margins with pairs of partially erect strong yellowish bristles, tergite 6 with a single bristle.

Wings light reddish brown, more dense in closed marginal cell, first posterior and anal cells short petiolate, posterior cell 4 petiolate.

Legs orange yellow, femora with black maculae dorsally, narrower on the middle femora; vestiture mostly yellow, apices of femora and tibiae with black hair and bristles; tibiae arcuate, ventrally yellow hairs, dorsally fewer hairs, weak bristles black, strong bristles yellow.

FEMALE.—Similar to male but more gray tomentose, hair on abdomen more uniformly distributed, middle femora without macula.

TYPE MATERIAL.—*Holotype male*, CRYSTAL ROAD, 4700 FEET, LOS ANGELES COUNTY, CALIFORNIA, 9 July 1952 (J. H. Nakata). Allotype, female, Redding, California, 8 July 1919 (E. P. Van Duzee). Paratypes, 1 female, Forest Home, Mill Creek, San Bernardino County, California, 28 August 1958 (J. C. Hall); 1 male, same data as holotype (R. M. Bohart); 1 male, 1 mile north Elephant Butte, Plumas County, Cali-



fornia, 29 June 1960 (J. S. Buckett); 1 male, Blue Lake, Lake County, California, 9 June 1959 (S. M. Fidel).

Most of the paratype specimens are more gray than brown-gray tomentose. The length ranges from 11 to 14 mm.

***Andrenosoma* (*Andrenosoma*) *corallium* Martin, new species**

*Andrenosoma cincta* Bellardi, *A. rubidus* (Williston), *A. phoenicogaster* Hermann, and *A. xanthocnema* Wiedemann from the Western Hemisphere have red tergites either with or without black markings. The femora are black and some species have red tibiae. *Andrenosoma corallium* seems to be the only species with all the tergites red and all the legs red.

MALE.—Length 14 mm. Face red with a median yellow spot on oral margin, front and occiput black, ocellar tubercle red; face gray tomentose, below a transverse bare stripe slightly contracted on the oral margin, front black, vertex yellowish brown tomentose, thinly pollinose behind ocellar tubercle, upper occiput yellow tomentose triangles, laterally and below the occiput gray to brownish tomentose; facial vestiture reddish yellow medially, white laterally, two red bristles on ocellar tubercle, occipital bristles reddish yellow, pile white; antennae reddish orange, white pollinose, segment 1 twice as long as 2, segment 3 about four times longer than segment 2, segment 1 with long yellow bristles and hair; palpi black, flat, excised.

Thorax red, median black stripe divided by a narrow yellow tomentose stripe, broad black lateral stripes divided by yellow tomentum extending around the anterior spots, white pollinose where not yellow; lateral bristles reddish, short hair yellow to white; scutellum red, golden to white pollinose, sparse short pile on disc, six long orange yellow bristles on posterior margin, pleurae with black spot above anterior coxa, white tomentose, some yellow tomentum, vestiture white to yellow.

Abdomen red, tergites 1-4 dorsally with sparse recumbent reddish yellow hair, posterior margins bare medially, tergites 5-7 with more dense yellowish white hair, tergites 1-6 laterally and medially with strong short reddish yellow bristles.

Wings nearly hyaline basally, brown apically, a stronger brown median cross band, two submarginal cells, first posterior cell short petiolate.

FEMALE.—Similar to the male.

TYPE MATERIAL.—*Holotype male*, VALERIO TRUJANO, OAXACA, MEXICO, 28 July 1937 (M. Embury). Allotype, female, same data as for holotype. Paratypes, 3 males and 2 females, same data as for holotype.

REMARKS.—One specimen has three submarginal cells in one wing and a stub of a crossvein in the other is starting to form a third submarginal.

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